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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,741	07/18/2000	Thomas M. Hartnett	07206-118001	8640

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DALY, CROWLEY, MOFFORD & DURKEE, LLP  
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354A TURNPIKE STREET  
CANTON, MA 02021-2714

EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/618,741

Applicant(s)

HARTNETT ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8,10-13 and 32-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,10-13 and 32-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 53-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 53 and 54 refer to "the heating of the chamber". There is no antecedent basis for this limitation – and it makes in confusing as to what is being claimed. The only other mention of heating is the heating of the particles. Applicant discloses various embodiments – including one where the chamber is at a constant temperature and one where the temperature is raised. Thus it is unclear if these claims encompass both of these limitations – or if the limitation should have been "the heating of the particles" or what.

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8, 10-11, 13 and 32-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire 4686070 alone, or in view of Serpek 1030929.

See how the reference were applied before. As to new claims 53-57: as best understood such are substantially identical to the other claims and are obvious for the same reasons.

As indicated in the previous prior art rejections, Maguire discloses the mixing of the ingredients at the claimed temperature, and including nitrogen so as to create aluminum oxynitride. However, Maguire does not disclose all of the specifics: the chamber; the steps being done continuously/simultaneously; and the predetermined

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temperature. None of these features are patentable modifications – absent a showing of new and unexpected results or some other overriding secondary consideration.

It would have been obvious to perform the Maguire process in a continuous process for all of the inherent benefits thereof.

**From MPEP 2144.04 :**

**E. Making Continuous**

In re Dilnot, 319 F.2d 188, 138 USPQ 248 (CCPA 1963) (Claim directed to a method of producing a cementitious structure wherein a stable air foam is introduced into a slurry of cementitious material differed from the prior art only in requiring the addition of the foam to be continuous. The court held the claimed continuous operation would have been obvious in light of the batch process of the prior art.).

As to the nitrogen being added while mixing: **From MPEP 2144.04**

**C. Changes in Sequence of Adding Ingredients**

Ex parte Rubin , 128 USPQ 440 (Bd. App. 1959) (Prior art reference disclosing a process of making a laminated sheet wherein a base sheet is first coated with a metallic film and thereafter impregnated with a thermosetting material was held to render prima facie obvious claims directed to a process of making a laminated sheet by reversing the order of the prior art process steps.). See also In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results); In re Gibson, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.).

In other words, there is no invention as to the order in which the materials/gases are added. As to the predetermined temperature: a continuous process inherently requires a specific constant temperature along the process – otherwise it is not continuous – it is varying. Furthermore, one would be motivated to keep the temperature (and all other parameters) essentially constant – otherwise there is a likelihood that varying

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parameters would result in varying product characteristics. Since Maguire teaches 1750 C - one would keep it at 1750 C and not change it.

Serpek can also be applied as done previous

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire and optionally in view of Serpek as applied to claim 11 above, and further in view of Abstract of JP403023269A or Dodds 5925584.

See how these references were applied in the previous rejections – for example that of April 6, 2003.

### ***Response to Arguments***

Applicant's arguments filed 21 July 2005 have been fully considered but they are not persuasive.

It is argued that that Examiner's response is not understood. In attempt to make clearer. The claims refer to the use of "a temperature". Maguire does use "a temperature". The fact that Maguire also uses additional temperatures is largely irrelevant – the claims are comprising in nature and are open to using additional temperatures. For example, at page 9, lines 4-11 of Applicant's specification another heating step. More importantly, Applicant's argument only pertains to Maguire's

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preferred embodiment, see col. 2, lines 53-55. From Maguire's claim 3, it is clear that Maguire also contemplates a single temperature.

It is further argued that the combination of references would result in a two step process. This is largely irrelevant. Many thing would be obvious based on both references – including that which Applicant argues. However, the only important issue is the specific combination as set forth in the rejection.

From MPEP 2145:

A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994)

By analogy, it is deemed that Applicant's one-step heat treatment does not become patentable just because Maguire implies it is somewhat inferior to the two heat-treatment process.

The arguments discuss the use of a single temperature, continuously mixing, and other continuous aspects of the claims. As indicated in the above rejection, these are usually obvious modifications. Applicant has not demonstrated that the invention is anything more than the simple conversion of a batch process to a continuous process. See the 40-year-old case law cited above which shows such is obvious.

In page 13 of the response, language of the independent claims is pointed out. However, the relevance of these passages are not pointed out. Examiner sees nothing

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in these passages which define over the combination. If applicant thinks there is a specific limitation that define over the combination, the burden is on applicant to specifically and clearly point out the limitation(s) – and specifically and clearly point out why it defines over the combination.

It bares repeating: Applicant's process uses the same reactants and temperatures as the prior art – and apparently the exact same final product is created. The various changes in the processing are obvious and do not warrant a granting of a patent – unless new and unexpected results are shown – via evidence. As to the alleged time savings: there is no showing that such is an unexpected result.

applicants bear the burden of establishing that the claimed subject matter in fact imparts unexpected properties. See In re Klosak, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not



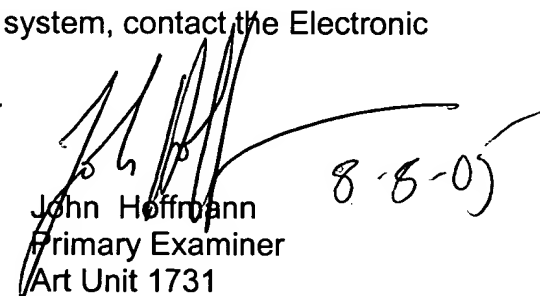
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

8-8-05

jmh